Response to Comments

Comment Deadline: September 3, 2019 by 5:00 p.m.

Draft National Pollutant Discharge Elimination System (NPDES) and Waste Discharge Requirements (WDRs)
Order R7-2019-0006
Imperial Irrigation District, El Centro Generating Station

Changes proposed in response to comments made on 8/30/19 are described below and incorporated into a redline that is available upon request and will be available at the hearing on the permit. Please contact Jose Valle de Leon at (760) 776-8940 or Jose.ValledeLeon@Waterboards.ca.gov for a copy.

Comment Letter #	Date	Commenter	Affiliation
Letter 1	8/30/2019	Mario Escalera	IID – Manager, Operations and Energy Infrastructure
Comment #	Location in the WDRs	Comment	Response
1	Page 1, Table 2, Discharge Location	"The effluent description does not accurately describe the effluent as a product of an industrial waste as recognized by the USEPA NPDES program. The El Centro Generating Station ("ECGS' or "the Facility") discharges industrial wastewater from the generation of electricity; ECGS does not treat municipal waste."	The effluent description in Table 2 does not state that the Discharger treats municipal waste. Nevertheless, for clarity, staff proposes replacing the wording in Table 2 as follows: under "Effluent Description," the term "Treated disinfected wastewater" will be changed to "Industrial wastewater."

As noted in the Fact Sheet (Attachment F), this NPDES permit "has been prepared 2 Page 5. "IID requests that language from the 2010 NPDES Section I, under a standardized format to accommodate a broad range of discharge Facility requirements for dischargers in California." The template is not specific to publicly Permit Writers Manual Information **NPDES Program Areas** owned treatment works (POTWs) that treat sewage and other municipal waste, but Applicable to Non-Municipal also functions as the template for industrial wastewater dischargers such as Imperial Sources. As stated in the Irrigation District (Discharger). manual 'Non-municipal A detailed description of the type of facility is neither necessary nor intended to be sources include industrial present in the section of the permit identified in the comment. Rather, a detailed and commercial facilities. description of facility operations is set forth in the Fact Sheet, Attachment F. industrial stormwater Additionally, most of the information requested to be included is merely background (including large construction information on industrial wastewater treatment facilities generally and is not specific to activities), and discharges the Discharger; while interesting background, it is simply not necessary to include in from small construction the permit. activity, concentrated animal In response to this comment, language highlighting the industrial nature of the feeding operations (CAFOs) discharge will be added to the Fact Sheet, on Page F-3, as follows: and concentrated aquatic animal production (CAAP) Under Section I of Attachment E, Permit Information, the sentence "The Facility facilities. Unlike municipal discharges wastewater to Central Drain No. 5, a water of the United States, sources, the types of raw tributary to the Alamo River" will be revised to read "The Facility discharges materials, production industrial wastewater to Central Drain No. 5, a water of the United States, tributary processes, treatment to the Alamo River." technologies used and Staff will also add the words "Steam Electric Power Generating (40 C.F.R. part 340)" pollutants discharged at next to the term "Industrial" under "Type of Facility" in Table F-1. industrial facilities vary widely and are dependent on the type of industry and specific facility characteristics. The operations, however, generally are carried out within a more clearly defined area; thus, the collection systems are less complex than POTW collection systems. In addition, unlike biosolids at POTWs, the NPDES program does not regulate residuals (sludge) generated by non-municipal facilities."

3.1	Pages 6-7, Table 4, Effluent Limitations	"The draft permit includes four new effluent limitations (Thallium, Lead, Chromium, and Oil and Grease) and significant reductions in some existing constituents. The draft permit does not	Staff strongly disagrees with this comment, and no changes are proposed in response to this comment. The draft permit provides a very detailed rationale for each effluent limitation added to the permit in the Fact Sheet, Attachment F. In fact, there is an entire section devoted exclusively to explaining the rationale for each and every effluent limitation in Section III of Attachment F, entitled "Rationale for Effluent Limitations and Discharge Specifications," which spans 18 pages. Table F-11 contains a summary of all final effluent limitations and the regulatory basis for each.
		provide adequate rationale for the inclusion of four additional effluent limitations."	As detailed in Section III.B entitled "Technology-Based Effluent Limitations," the effluent limitations for Chromium and Oil and Grease are technology-based effluent limitations (TBELs). Section 301(b) of the Clean Water Act and implementing USEPA regulations at 40 C.F.R. section 122.44 require that NPDES permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by the draft permit must meet minimum federal technology-based requirements based on Effluent Limitations Guidelines and Standards (ELGs) for the Steam Electric Power Generating Point Source Category in 40 C.F.R. part 423. Table F-6 contains a summary of all applicable TBELS and that regulatory basis for each. The Oil and Grease effluent limitation is based on best practicable treatment control technology (BPT) in 40 C.F.R. section 423.12(b)(3); the Chromium effluent limitation is based on best available technology economically achievable (BAT) in 40 C.F.R. section 423.13(d)(1).
			As detailed in Section III.C entitled "Water Quality-Based Effluent Limitations," the effluent limitations for Thallium and Lead (Priority Pollutants listed in 40 C.F.R. part 423, Appendix A) are water quality-based effluent limitations (WQBELs) based on the reasonable potential analysis (RPA) conducted in accordance with the State Water Board's <i>Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California</i> (State Implementation Policy or SIP) and the USEPA's National Toxics Rule (NTR) and California Toxics Rule (CTR). Federal regulations at 40 C.F.R. 122.44(d) require effluent limitations to control all pollutants which are or may be discharged at a level which will cause or have the reasonable potential to cause or contribute to an excursion above any state water quality standard. Sections III.C.3 and III.C.4 explain how the Regional Water Board conducted the RPA for Thallium and Lead. Attachment G also contains WQBELs calculations for Priority Pollutants, including Thallium and Lead.
			For additional information on how the RPA is conducted, the USEPA has a helpful presentation on the statistical approach to these calculations: https://www.epa.gov/sites/production/files/documents/T5 BruceKent ReasonablePote https://www.epa.gov/sites/production/files/documents/T5 BruceKent Reasonable Reasonable Reasonable Reasonable Reasonable Reasonable Reasonable Reasonable Reasonable Reaso

3.2 Pages 6-7, "Without further Table 4, characterization of the Effluent nature presence of the added constituents, a plan Limitations for compliance cannot be developed. IID requests that the subject constituents be subject to monitoring and reporting requirements only at the current time and the data collected will form the basis for development of a compliance plan for the new constituents required by the monitoring and reporting program. Attachment F does not provide adequately detailed rationale regarding the need for additional constituents. Until such rationale can be provided, IID requests that the effluent limitations for these constituents be utilized as interim effluent limitations until more information can be generated to assess the need for and means of compliance for the newly added constituents. As an alternative, ID requests that effluent limitations for these constituents be included as interim effluent limitations

(Page 8 of the draft permit)

so that a compliance approach for the newly added constituents can be

developed"

The Discharger is not eligible for interim effluent limitations, but the Discharger has the option to apply for a separate Time Schedule Order (TSO) or Cease and Desist Order (CDO) based on Water Code section 13385(j)(3).

Interim effluent limitations may only be included in an NPDES permit through a Compliance Schedule, the requirements for which are codified at 40 C.F.R. section 122.47 and in the State Water Board's *Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits* (Resolution 2008-0025). Notably, Resolution 2008-0025 does not allow Compliance Schedules beyond 2010 for Priority Pollutants (listed in 40 C.F.R. part 423, Appendix A) regulated under the current 2005 version of the SIP. Accordingly, there are no Compliance Schedules or interim effluent limitations available for Thallium or Lead, which are Priority Pollutants. Additionally, according to the USEPA's *NPDES Permit Writers' Manual*, Compliance Schedules are not available for TBELs. Since the limitations for Chromium and Oil and Grease are TBELs, there cannot be interim limits for these pollutants in the draft permit.

However, the Discharger is potentially eligible for either a TSO or CDO for Thallium, Lead, Chromium, and Oil and Grease based on Water Code section 13385(j)(3). This statute allows the implementation of time schedules/interim limits (and therefore protection from mandatory minimum penalties [MMPs] under Water Code section 13385) while the Discharger achieves compliance with new or more stringent effluent limitations, where new or modified control measures are necessary to comply with the new/more stringent limitations.

To be eligible for a TSO/CDO under Water Code section 13385(j)(3), the Discharger must satisfy all of the criteria listed in subdivision (j)(3). This includes the preparation and implementation of a Pollution Prevention Plan and submission of a proposed schedule for implementation of additional source control measures. In the comment, the Discharger does not actually make a proposal under Water Code section 13385; however, nothing precludes the Discharger from making such a proposal in the future. Notably, the Discharger expressed interest in obtaining a TSO/CDO to Regional Water Board staff back in May 2019, but despite being afforded several months to make a proposal prior to adoption of the NPDES permit, has yet to make such a proposal.

No changes will be made in response to this comment.

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Letter 1	8/30/2019	Mario Escalera	IID – Manager, Operations and Energy Infrastructure
Comment #	Location in the WDRs	Comment	Response
4.1	Pages 6-7, Table 4, Effluent Limitations	"Many of the existing effluent limitations reflect significant reductions from the effluent limitations in R7-2014-0005. Permittee should be provided with interim limits to allow time to implement measures to meet the new discharge permit limits."	Please see the response to Comment 3.2 above. The Discharger is not eligible for interim effluent limitations, but the Discharger has the option to apply for a separate TSO or CDO based on Water Code section 13385(j)(3). No changes will be made in response to this comment.
4.2	Pages 6-7, Table 4, Effluent Limitations	"Additionally, the proposed permit limit for Selenium (2.6 ppb) would be exceeded by the Colorado River water that is used as source water for the facility as per State of California Resource Agency Selenium Fact Sheet and the SWAMP Report produced by your office. We feel that this proposed limit is unrealistic considering the concentrations found in the source water and is out of line with limits granted to larger discharger(s) in the area this year."	Selenium had 17 detections in the Facility's effluent during the monitoring required in the Order R7-2014-0005. The proposed effluent limitation is based on the reasonable potential analysis (RPA) conducted in accordance with applicable state and federal regulations; namely, the SIP and CTR/NTR. Based on the monitoring data from the Discharger, the RPA calculation led to an effluent limitation of 2.6 parts per billion for Selenium in order to protect the beneficial uses of the receiving water and aquatic life. See Section III of the Fact Sheet, Attachment F. The Facility receives source water from the Dogwood Canal, which is fed by the Lower Colorado River. Recent data collected by the USGS Arizona Water Science Center shows Selenium concentrations ranging from 1.1 to 2.1 parts per billion. Effluent selenium concentrations from the Discharger average about 5.3 parts per billion. Since the Discharger is not inputting any Selenium during their industrial process, the likely explanation for the increase in Selenium is that the pollutant concentrates due to evaporation from the cooling towers. For metals and certain compounds, evaporating water can lead to a higher concentration in the effluent. No changes will be made in response to this comment.

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5	Page 8, Section V.A.8, Temperatur e	"Request language be changed from "Alter the natural receiving water temperature unless the Discharger can demonstrate to the satisfaction of the Colorado River Basin Water Board that the alteration in temperature does not adversely affect beneficial uses." to "Result in altering the natural receiving water temperature that adversely affects beneficial uses. " to match language in the current permit. The permits (past, present, and future) require monitoring and reporting of temperatures of effluent, and receiving waters (upstream and downstream). The data demonstrates that the receiving water temperature is altered by discharge however, there is no evidence to show that it has had any adverse impact on beneficial use of the drainage canal. The facility has been in operation since 1949."	The current language in the draft permit is pulled directly from the Water Quality Control Plan for the Colorado River Basin Region (Basin Plan) and paraphrases the water quality objective for temperature contained in Chapter 3, Section II.D of the Basin Plan, which reads as follows: "The natural receiving water temperature of surface waters shall not be altered by discharges of wastewater unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses." No changes to the draft permit will be made in response this comment.

	1		
6	Page 9,	"This provision requires	Staff disagrees with this comment. The Discharger is indeed subject to the certification
	Section	supervision of the	requirements contained in Water Code section 13627 and California Code of
	VI.A.2.c	wastewater treatment plant	Regulations, title 23, section 3670 et seq.
		by persons possessing	Water Code section 13625(d)(1)(A) defines "Wastewater treatment plant" as, among
		certification of the	other things, "[a]ny facility owned by a state, local, or federal agency and used in the
		appropriate grade pursuant	treatment or reclamation of sewage or industrial wastes." The same definition is found
		to California Code of	in California Code of Regulations, title 23, section 3671. The Discharger is a public
		Regulation (CCR), title 23,	agency, and its Facility does treat industrial wastewater through dechlorination, as the
		section 3680. CCR title 23,	comment itself admits. Thus, the Discharger does operate a "wastewater treatment
		section 3680) requires	plant" as that term is defined in the Water Code and title 23 of the California Code of
		supervision and operation	Regulations.
		by certified operators for	
		municipal wastewater or	Further, Water Code section 13627(a) states that "a person who operates a
		recycled water plants. IID operates a facility that	wastewater treatment plant shall possess a valid, unexpired wastewater certificate of the appropriate grade." The various grade levels are outlined in California Code of
		generates and treats	Regulations, title 23, section 3675. Although the Discharger is correct that its
		industrial wastewater and its	wastewater treatment does not fall within the conventional categories (which are
		operators are highly trained	largely aimed at POTWs), subdivision (b)(3) specifically provides that "[a] wastewater
		and skilled. The	treatment plant may be classified other than as indicated in subdivision (a) if:(3) the
		requirement for operator	wastewater treatment plant uses an approved method of wastewater treatment not
		supervision should be	included in subdivision (a)." It is the State Water Board's Division of Financial
		eliminated from the IID	Assistance, Operator Certification Section that would appropriately classify the Facility
		permit. IID does not operate	and make any final determination as to its classification level.
		a wastewater treatment	·
		facility. The facility only adds	Finally, it is worth noting that certain Class I facilities may apply for an exemption from certification requirements. (Wat. Code, § 13625.1; Cal. Code Regs., tit. 23, § 3677.)
		a de-chlorination agent to	The Discharger may wish to explore this option depending on how the State Water
		the wastewater being	Board classifies the Facility.
		discharged. The facility is	board oldoomes the racility.
		not a Class I wastewater	
		treatment plant as it neither	
		has pond treatment or	
		primary treatment processes	
		for its industrial wastewater.	
		["Primary treatment"	
		means a	
		wastewater treatment	
		process that allows those	
		substances in wastewater	
		that readily settle or float to	
		be separated from the water	

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		being treated. "Pond treatment" means processing in a pond in which biological oxidation of organic matter is effected by natural or artificially accelerated transfer of oxygen to the water. CCR title 23, section 3671.]"	
7	Page 19, Section VII.K, Total Residual Chlorine Effluent Limitation	"Request this section be removed, as it is not applicable to the facility."	Staff concurs with this comment, and the referenced section will be removed. The provision at issue was derived from federal regulations for drinking water found in 40 C.F.R. section 141.74. The receiving water is part of the Imperial Valley Drains, tributary to the Alamo River and the Salton Sea; none of these water bodies has a municipal supply beneficial use (MUN) to which the federal drinking water standards would apply.

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8	Page E-7, Footnote 3	"IID understands that information "regarding mixing zones or dilution credits are not authorized for this discharger and 100% effluent will be considered the IWC". IID requests that the footnote acknowledge that should mixing zones studies be completed to the satisfaction of the Regional board, the Board shall consider the studies demonstrate that mixing zone and dilution credits are appropriate for the IID discharge, and the Regional Board will reopen the permit to reflect the mixing zone or dilution credit, as appropriate."	No mixing zone or dilution credits are authorized at this time. For clarity, staff proposes revising the footnote cited as follows: "Mixing zones or dilution credits are not authorized for the Discharger at this time and 100% effluent will be considered the IWC." The Discharger is always free to conduct a comprehensive mixing zone study. Staff will evaluate the study and provide a recommendation for further action, including reopening the permit if appropriate.

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9	Page E-15, Table E-8, Monitoring Periods and Reporting Schedule	"Monitoring period is listed as beginning July 1, 2019 however the permit will not be valid and in effect until Oct 1, 2019. These dates need to be adjusted. Additionally, by the time this permit is approved, the Facility will have already completed required testing under the existing permit. The Facility would not expect to be required to retest due to approval of the new permit. Please revise the effective date to October 1, 2019 for daily, weekly, monthly and quarterly monitoring, and January 1, 2020 for semi-annual and annual monitoring."	Staff concurs with this comment. The dates in Table E-8 will be fixed and updated to reflect October 1, 2019 as the permit effective date.

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10	Attachment F, Fact Sheet	"Documentation does not provide rationale to support modification of the effluent description of the ECGS effluent in the draft permit. IID requests that the effluent description accurately describe the effluent as "treated industrial wastewater" and reflect the guidance in the NPDES permit writers guide regarding Industrial Wastewater discharges."	
11	Page F-3, Table F-1, Facility Information	"Revised facility contact to replace Wayne Lane with Hector Galarte, Supt., General Generation, Ph.: (760) 457-5384."	Staff will update the Facility contact information in Table F-1 to reflect the new information provided.
12	Page F-4, Section II, Facility Description	"There are a few discrepancies that need correction as follows: The Facility utilizes three cooling towers; Clarifying agent added to facility make-up water is used to settle TSS only; Cooling tower make-up is from raw water ponds without any RO or DI treatment."	 Staff proposes to make the following changes in response to this comment: Page F-4, Section II, Facility Description: Replace "four" with "three" in the eighth sentence, such that the revised sentence reads, "The Facility utilizes three cooling towers" Page F-4, Section II, Facility Description: In the tenth sentence, replace "bacterial, fungal, and algal growth" with "total suspended solids (TSS)," such that the revised sentence reads, "Raw water entering the Facility is treated with a clarifying agent to control total suspended solids (TSS) prior to storage in the basins." Additionally, the facility operations flowchart in Attachment C will be updated to be consistent with the latest flowchart provided by the Discharger.

Page F-5,
Section
II.A,
Description
of Wastewater
Treatment
System

"The Facility does not have a wastewater treatment system. The only wastewater treatment is dechlorination with sodium bisulfite. A majority of what is listed is process treatment and should be removed from this section, as it is not wastewater treatment. Additionally, chlorine treatment is based on a combination of ORP control and batch feeding, but times listed are not accurate. bleed-off from evaporative coolers do not go through the oil-water separator as described, and wastewater to the injection wells is filtered to remove TSS and stored in a tank prior to injection, but there is no carbon filter or storage pond associated with the process."

Please see the response to Comment 6; staff disagrees that the Facility does not have a wastewater treatment system.

The title of Section II.A of the Fact Sheet, Attachment F, will be changed from "Description of Wastewater Treatment System" to "Description of Process Water and Wastewater Treatment System."

Staff also proposes making the following additional changes in response to this comment:

- Page F-5, Section II.A. Description of Wastewater Treatment System, second paragraph:
 - Delete entire paragraph.
- Page F-5, Section II.A. Description of Wastewater Treatment System, third paragraph:
 - Replace "occurs in four hour cycles approximately once every twelve hours" in the first sentence with "is based on oxidation reduction potential (ORP) control and batch feeding," such that the updated sentence reads, "Chlorine treatment is based on oxidation reduction potential (ORP) control and batch feeding."
 - Replace the term "effluent" with "process water" in the third sentence, such that
 the updated sentence reads, "Up to 21,600 gallons per day (gpd) of RO-treated
 process water (prior to de-ionization)."
 - Delete the fourth/last sentence "Bleed-off from ... separator for treatment."
- Page F-5, Section II.A. Description of Wastewater Treatment System, fourth paragraph:
 - In the fourth sentence, replace "collected in a water storage pond,... and is injected into IW-1 and IW-3" with "filtered to remove TSS and stored in a tank prior to injection." The updated sentence reads, "Wastewater disposed of through the UIWs is filtered to remove TSS and stored in a tank prior to injection."
- Page F-5, Section III.A. Description of Wastewater Treatment System, fifth paragraph:
 - Replace the term "commences" with "still occurs" in the first sentence, such that the updated sentence reads, "Discharge to surface waters still occurs seasonally, normally during the summer months...."
 - Replace the term "bisulfate" with "bisulfite" in the second sentence.
- Page F-6:
 - Replace "3DT199" with "3DT397" in the list of added chemicals.

14 Page F-18, "IID understands that the Table F-8, hardness value used to **Applicable** conduct reasonable potential analysis for the Beneficial Uses and draft Order was the minimum value of the Water receiving water upstream of Quality Criteria and RSW-001. IID requests that Objectives the Regional Board analyze the entire set of hardness testing to determine whether the lowest value is not an anomaly or subject to analytical error. IID notes that the hardness values throughout the Imperial Valley are significantly greater than the values used by the Regional Board to conduct RPA for this Order. IID requests that the entire data set for hardness be evaluated in order to the provide a more accurate Reasonable Potential Analysis. Current permit R7-2014-0005 used 300 mg/L for hardness and 7.07 for pH. A hardness of 256 mg/L is substantially below the fresh water hardness for the facility (utilize by ECGS and upstream discharger). The 256 mg/L hardness appears to be an erroneous measurement as demonstrated by attached data. Additionally, the pH value of 6.41 used in the draft Order does not seem

The hardness and pH values used in the RPA were mistyped and will change from:

Hardness: 256 mg/L to 268 mg/L

• pH: 6.41 to 7.01

Inaccurate references to hardness and pH values will be corrected in Sections III.C.2 and III.C.3. of the Fact Sheet, Attachment F.

The pH difference does not affect any proposed effluent limitations developed through the RPA process. The change in hardness value does change the water quality-based effluent limitations for Copper, Lead, and Zinc. As such, the effluent limitation values will be updated in Table 4, Table F-10, Table F-11, and Table G-2 with the values reflected below:

Parameter	Units	Revised Effluent Limits (New)		Draft Effluent Limits	
		Avg.	Max.	Avg.	Max.
		Monthly	Daily	Monthly	Daily
		Effluent	Effluent	Effluent	Effluent
		Limit	Limit	Limit	Limit
Copper	μg/L	12.3	35.4	12.08	34
Lead	μg/L	9.1	18.3	8.6	17
Zinc	μg/L	104	276	100	266

Additionally, the numbers in Table F-8 and Table F-9, as well as the calculations in Section III.4.a (which describes the cyanide RPA) will be updated to reflect changes from the updated hardness value.

All of the changes described in this response are reflected in a redline, which is available upon request and will be available at the hearing on the permit.

The values used and adjusted above are based on the lowest reported values of pH and hardness. Acute toxicity for freshwater animals can increase if hardness decreases. In order to protect aquatic life, the strictest value that can be used for hardness would be lowest reported value. The lowest reported value from the Discharger is 268 mg/L.

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		to correspond with available data. Hardness and pH data for the raw water, upstream receiving water, and Central Drain outlet have been attached for reference."	